

CLAIM AMENDMENTS

1. (Currently amended) A replication deficient adenoviral vector comprising an adenovirus serotype 5 genome and comprising a nucleic acid sequence encoding pigment epithelium-derived factor (PEDF) or a therapeutic fragment thereof, wherein (a) the nucleic acid sequence is operably linked to a CMV promoter, (b) the adenoviral vector is rendered replication deficient by deletion of all of the E1 region and by deletion of a portion all of the E4 region, and (c) the adenoviral vector comprises a pGUS spacer sequence in place of the deleted portion of the E4 region, wherein the pGUS spacer sequence comprises an SV40 polyadenylation sequence.

2.-7. (Cancelled)

8. (Previously presented) The adenoviral vector of claim 1, wherein the adenoviral vector is lacking all or part of the E3 region.

9.-10. (Cancelled)

11. (Previously presented) The adenoviral vector of claim 8, wherein the adenoviral vector comprises a nucleic acid sequence encoding a cis-acting factor, wherein the cis-acting factor modulates the expression of the nucleic acid sequence encoding PEDF or a therapeutic fragment thereof.

12. (Previously presented) The adenoviral vector of claim 11, wherein the cis-acting factor is a MAR sequence or a LCR sequence.

13. (Previously presented) The adenoviral vector of claim 8, wherein the adenoviral vector further comprises a nucleic acid sequence encoding a trans-acting factor, wherein the trans-acting factor modulates the expression of the nucleic acid sequence encoding PEDF or a therapeutic fragment thereof, and wherein the nucleic acid sequence encoding a trans-acting factor does not encode an adenoviral E4 region gene product.

14. (Previously presented) The adenoviral vector of claim 13, wherein the trans-acting factor is selected from the group consisting of HSV ICP0, Ad pTP, CMV UL84, VZV-ORF61, PRV-EP0, CMV-E1, CMV-IE2, CMV-IE86, HIV-tat, HTLV-tax, HBV-X, and AAV-Rep 78.

15.-17. (Cancelled)

18. (Previously presented) The adenoviral vector of claim 1, wherein the adenoviral vector comprises a chimeric coat protein comprising a nonnative amino acid sequence,
wherein the chimeric virus coat protein directs entry into cells of a vector comprising the chimeric virus coat protein that is more efficient than entry into cells of a vector that is identical except for comprising a wild-type virus coat protein rather than the chimeric virus protein, and
wherein the chimeric virus coat protein binds an endogenous binding site present on the cell surface not recognized by a vector comprising a wild-type virus coat protein.

19. (Previously presented) The adenoviral vector of claim 18, wherein the nonnative amino acid sequence is inserted into or in place of an internal coat protein sequence.

20. (Previously presented) The adenoviral vector of claim 1, wherein the adenoviral vector comprises a chimeric virus coat protein comprising a nonnative amino acid sequence inserted into or in place of an internal coat protein sequence,
wherein the chimeric virus coat protein efficiently binds to a broader range of eukaryotic cells than a wild-type virus coat protein and wherein the chimeric virus coat protein is not selective for a specific type of eukaryotic cell.

21. (Previously presented) The adenoviral vector of claim 1 further comprising one or more additional nucleic acid sequences encoding therapeutic substances other than PEDF or a therapeutic fragment thereof.

22. (Cancelled)

23. (Cancelled)

24. (Previously presented) The adenoviral vector of claim 21, wherein one or more additional nucleic acid sequences encodes an anti-angiogenic substance.

25. (Previously presented) The adenoviral vector of claim 24, wherein the anti-angiogenic substance is a soluble receptor specific for an angiogenic factor.

26. (Previously presented) The adenoviral vector of claim 25, wherein the soluble receptor specific for an angiogenic factor is a soluble VEGF-R1 receptor.

27. (Previously presented) The adenoviral vector of claim 21, wherein the therapeutic substances other than PEDF or a therapeutic fragment thereof are linked to an endoplasmic reticulum localization signal peptide.

28.-44. (Cancelled)

45. (New) The adenoviral vector of claim 1, wherein the adenoviral vector comprises a nucleic acid sequence encoding PEDF.